

MCAT

FULL LENGTH PAPER-4

AS PER UHS PATTERN

Total MCQs: 220
Max. Marks: 1100

Time Allowed: 150 Minute

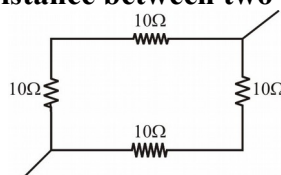
PHYSICS

- Q.1 Which of the following is not a S.I. base unit:**
 A) kg C) cd
 B) ampere D) Coulomb
- Q.2 Which of the materials is/are fluorescent?**
 A) zinc sulphide C) barium platinocyanide
 B) sodium iodide D) all of these
- Q.3 Centre of gravity of a body lies:**
 A) Inside a body C) May be inside or outside a body
 B) Outside a body D) None of the above
- Q.4 A body is moving in a circle with constant speed, which of the following statement about the body is true:**
 A) There is no force acting towards the centre of the circle
 B) There is no any acceleration
 C) There is a force acting at a tangent to a circle
 D) K. E of body remains constant
- Q.5 Blood pressure measuring instrument is called:**
 A) Stethoscope C) Sino scope
 B) Sphygmomanometer D) Spectroscope
- Q.6 If m = mass of electron h = Planck's constant and C = speed of light then the dimension of $\frac{h}{mc}$ is**
 A) T C) L^{-1}
 B) L C) T^{-1}
- Q.7 If earth stop spinning about polar axis then weight of object on earth**
 A) Remain same C) Decreases
 B) Increases D) Become zero
- Q.8 During an adiabatic expansion of 2 moles of gas, the internal energy of the gas is found to decrease by 2 joule, the work done during the process on the gas will be equal to**
 A) 1 J C) 2 J
 B) -1 J D) -2 J
- Q.9 Mercury is used as a thermometric substance because:**
 A) Its expansion is linear over a wide range of temperature
 B) Its is sensitive to heat because of its low specific heat
 C) It is easily distinct able and visible
 D) All of the above
- Q.10 At what temperature, the Fahrenheit and Kelvin scale will have the same reading:**
 A) 574.25° C) 450.4°
 B) 425.4° D) 375.4°
- Q.11 An oil film spreading over a wet footpath shows colour shows colour due to:**
 A) Dispersion of light waves C) Interference of light waves
 B) Diffraction of light waves D) Polarization of light waves
- Q.12 The property of the bending of light around the obstacle is known as:**
 A) Interference C) Reflection
 B) Diffraction D) Less for sharp edges
- Q.13 Diffraction is the characteristic of:**
 A) Particle nature of light C) Dual nature of light
 B) Wave nature of light D) None of the above

PIONEER	JOHAR TOWN	MATRIC	FAISAL TOWN	TOWNSHIP
IQBAL TOWN	NISHTER BLOCK	SODI WAL	GULSHAN RAVI	GULBERG
OUTFALL	RAVI ROAD	SHADMAN	MUGHAL PURA	CHAUBURJI

KASUR	GUJRANWALA	GUJRAT	SIALKOT	FAISALABAD	SARGODHA	JHANG
RAWALPINDI	ISLAMABAD	ABBOTTABAD	MIRPUR	PESHAWAR	OKARA	
SAHIWAL	BUREWALA	MULTAN	D.G KHAN	BAHAWALPUR	R.Y KHAN	

- Q.14 Diffraction effects are:**
A) More for sharp edges
B) Less for cylindrical
C) Less for round edges
D) Polarization
- Q.15 Doppler's effect can be applied to:**
A) Sound waves in space
B) Electromagnetic waves
C) Both of the above
D) High frequency sound waves only
- Q.16 When the source of the sound approaches the listener, the frequency of the sound received by the observer will be:**
A) Less than the frequency of the sound produced by the source
B) Greater than the frequency of the sound produced by the source
C) Same as that produced by the source
D) Zero
- Q.17 A source of sound having a frequency "f" is moving with the velocity "u" towards a stationary listener. If "v" is the velocity of the sound, then the apparent frequency of the sound heard by the observer would be:**
A) $\frac{vf}{v+u}$
B) $(v+u/v)f$
C) $\frac{vf}{v-u}$
D) $(v-u/v)f$
- Q.18 In a Radar system designed in accordance with Doppler's effect, if an airplane is approaching the Radar, then the wavelength of the reflected wave from the airplane would be:**
A) Either smaller or larger than the transmitting wave
B) Larger than the transmitting wave
C) Same as that of the transmitting wave
D) Smaller than the transmitting wave
- Q.19 When resistances are connected in series, the equivalent resistance is equal to:**
A) Product of the reciprocals of the individual resistances
B) Sum of the reciprocals of the individual resistances
C) Product of the individual resistances
D) Sum of the individual resistances
- Q.20 If a radio and a bulb each of resistance 3Ω are connected in series to a 12V battery, the potential difference across each will be:**
A) 3V
B) 6V
C) 9V
D) 12V
- Q.21 Four wires of equal length and of resistance 10Ω each are connected in the form of a square. The equivalent resistance between two opposite corners of the square is**



- A) 10Ω
B) 20Ω
C) 40Ω
D) $5/2\Omega$
- Q.22 Path difference for constructive interference is written as**
(A) $\frac{n\lambda}{2}$
(B) $n\lambda$
(C) $(2n+1)\frac{\lambda}{2}$
(D) $(2n+\frac{1}{2})\frac{\lambda}{2}$
- Q.23 Which of the following can be used in visualizing detailed internal human structures:**
A) Magnetic resonance imaging (MRI)
B) Magnetic resonance tomography (MRT)
C) CT scanning
D) All of the above
- Q.24 MRI is preferred over computed tomography (CT) because:**
A) It involves no any ionizing radiations
B) Differentiate between soft and hard tissues and is more beneficial for brain and heart scanning as compared to CT scanning
C) Both of the above
D) Nuclear magnetic resonance imaging (NMRI)

- Q.25** Within the elastic limit, the ratio between the applied tensile stress to the produced tensile strain is called:
- A) Elasticity modulus
B) Bulk modulus
C) Young's modulus
D) Shear modulus
- Q.26** The ratio of shear stress and shear strain is called
- A) Young's modulus
B) Shear modulus
C) Bulk modulus
D) Compressive modulus
- Q.27** A NOR gate is ON only when:
- A) Both inputs 0
B) Both inputs 1
C) Either inputs 0
D) All of above
- Q.28** Which one of the following is not a logic operation:
- A) AND operation
B) OR operation
C) Division
D) NOT operation
- Q.29** X rays can cause ionization in:
- A) Conductors
B) Semi-conductors
C) Solid insulators
D) Gases
- Q.30** X rays are diffracted by:
- A) Diffraction grating
B) Crystal lattice
C) Glass grating
D) None of Above
- Q.31** An electron from K shell is knocked out and an other electron jumps from a higher shell to fill it. The energy is released by the second electron in the form of:
- A) Light rays
B) X rays
C) Gamma rays
D) Beta rays
- Q.32** X – rays break molecular bonds and create highly reactive free radicals which in turn can disturb molecular structure of proteins especially
- A) Bones
B) Blood Cells
C) Genetic material
D) None of these
- Q.33** The electron structures of atoms are not involved in the emission of:
- A) Spectral lines
B) Gamma rays
C) Photo electrons
D) X rays
- Q.34** Laser is an intense beam of light which is:
- A) Mono chromatic
B) Collimated
C) Coherent
D) All of the above
- Q.35** Laser beam can be used to generate three dimensional images of objects in a process called:
- A) Tomography
B) Holography
C) Electrography
D) Xerography
- Q.36** Alpha radiations are not recommended for the treatment of patients because:
- A) They are highly ionizing
B) They are helium nuclei
C) They are less penetrating
D) They are positively charged
- Q.37** Which of the following radiation are suitable for the treatment of flesh just under the skin:
- A) Alpha radiations
B) Beta radiations
C) Gamma radiations
D) X rays
- Q.38** In Wilson cloud chamber, the gamma rays leave:
- A) Thick and continuous tracks
B) Thick and discontinuous tracks
C) Dense and continuous tracks
D) No definite tracks
- Q.39** When a radioactive isotope ${}_{88}\text{Ra}^{228}$ decays in series by the emission of three α -particles and a β -particle the isotope finally formed is
- A) ${}_{84}\text{X}^{220}$
B) ${}_{86}\text{X}^{222}$
C) ${}_{83}\text{X}^{216}$
D) ${}_{83}\text{X}^{215}$
- Q.40** Polymeric solids have _____ as compared with lightest metals
- A) High specific gravity
B) Specific gravity equal to lightest metals
C) Low specific gravity
D) None of these
- Q.41** The reciprocal of decay constant of a radioactive element is called its:
- A) Half life
B) Mean life
C) None of the above
D) Two life

- Q.42** A naturally occurring disintegration involving the emission of high energy electrons is called:
- A) Alpha decay
B) Beta decay
C) Gamma decay
D) Sigma decay
- Q.43** Which of the following is correct about Kinetic molecular theory of gases:
- A) Momentum and K.E. after collisions among gas molecules are not conserved
B) Momentum is conserved but K.E. is not conserved
C) Both K.E. and momentum are conserved
D) None of the above
- Q.44** Pressure of a gas is directly proportional to:
- A) Average K.E. of its molecules
B) Average vibrational K.E. of its molecules
C) Average translational K.E. of its molecules
D) All of the above

CHEMISTRY

- Q.45** Which of the following intermediate has the complete octet around the carbon atom
- A) Free radical
B) Carbanion
C) Carbonium ion
D) None of these
- Q.46** What is the electrophile in the electrophilic substitution reaction of acetyl chloride (CH_3COCl) and AlCl_3 reacting with benzene
- A) Cl^+
B) AlCl_3
C) $\text{CH}_3\text{C}^+=\text{O}$
D) $\text{C} \equiv \text{O}^+$
- Q.47** The one which will not give alkene on dehydration
- A) 2,2-Dimethyl propan-1-ol
B) 2-Methyl butan-1-ol
C) 2-Methyl-propan-2-ol
D) 2-Butanol
- Q.48** Acylation of benzene is the introduction of _____ on benzene
- A) $\text{R}-\overset{\text{O}}{\parallel}{\text{C}}-\text{O}^-$
B) $\text{R}-\overset{\text{O}}{\parallel}{\text{C}}-$
C) $\text{Cr}-\overset{\text{O}}{\parallel}{\text{C}}-$
D) $\text{H}-\overset{\text{O}}{\parallel}{\text{C}}-$
- Q.49** The most reactive halide towards $\text{S}_{\text{N}}1$ reaction is
- A) sec-butyl chloride
B) n-butyl chloride
C) tert-butyl chloride
D) Allyl chloride
- Q.50** Freon-12 is commonly used as
- A) Refrigerant
B) Insecticide
C) A solvent
D) A fire extinguisher
- Q.51** The compound $\text{C}_4\text{H}_{10}\text{O}$, on oxidation, yields a ketone with formula $\text{C}_4\text{H}_8\text{O}$. The parent compound is most likely to be
- A) 1-Butanol
B) 2-Butanol
C) 2-Methoxy Propane
D) 2-Methyl -2-propanol
- Q.52** Alcohols have higher boiling points than their corresponding alkanes due to
- A) Higher polarity
B) Higher molar mass
C) Ability to form hydrogen bonding
D) All of these
- Q.53** The alcohol which is most acidic
- A) CH_3OH
B) $\text{C}_2\text{H}_5\text{OH}$
C) $\text{C}_3\text{H}_7\text{OH}$
D) $\text{C}_4\text{H}_9\text{OH}$
- Q.54** Dehydration of alcohol produces alkenes. The alcohol which does not undergo this reaction is
- A) Methanol
B) Ethanol
C) 1-Propanol
D) 2-Butanol
- Q.55** Which of the following ketones will not respond to iodoform test
- A) Methyl isopropyl ketone
B) Ethyl isopropyl ketone
C) Dimethyl ketone
D) 2-Hexanone

- Q.56** Which of the following does not have alpha hydrogen
 A) Benzaldehyde
 B) Phenyl acetaldehyde
 C) Acetaldehyde
 D) Acetophenone
- Q.57** The compound that will not give iodoform on treatment with alkali and iodine is
 A) Acetone
 B) Diethyl ketone
 C) Ethanol
 D) Isopropyl alcohol
- Q.58** During esterification of carboxylic acid with alcohol which bond of carboxylic acid undergoes cleavage
 A) C — C
 B) C = O
 C) C — O
 D) O — H
- Q.59** Chloroform is formed when HOCl reacts with
 A) Formic acid
 B) Butyric acid
 C) Humic acid
 D) None
- Q.60** X and Y are the reagents required to convert 1-bromopropane into butanoic acid
 What are the correct identities of X and Y
- | | X | Y |
|----|---|----------|
| A) | NH ₃ | HCl(aq) |
| B) | KCN in C ₂ H ₅ OH | NaOH(aq) |
| C) | KCN in C ₂ H ₅ OH | HCl(aq) |
| D) | HCN | NaOH(aq) |
- Q.61** The Neutral with two chiral carbons, amino acid is
 A) Methionine
 B) Serine
 C) Threonine
 D) Tyrosine
- Q.62** In zwitter ionic structure of an amino acid, the acidic character is due to
 A) NH_3^+
 B) H^+
 C) $-\text{COO}^-$
 D) OH^-
- Q.63** All of the following amino acids are essential except
 A) Phenylalanine
 B) Arginine
 C) Lysine
 D) Isoleucine
- Q.64** Which of the following amino acid is sulphur containing
 A) Methionine
 B) Serine
 C) Leucine
 D) Proline
- Q.65** Which of the following amino acid on reaction with aq. Nitrous acid produces lactic acid?
 A) Glycine
 B) Valine
 C) Alanine
 D) Lysine
- Q.66** Large number of amino acids is joined by _____ to form protein
 A) Peptide bonds
 B) Amide linkage
 C) Condensation reactions
 D) All are true
- Q.67** Which one of the following macromolecules contains carbon, hydrogen, nitrogen and oxygen in it
 A) Starch
 B) Cellulose
 C) Protein
 D) Fat
- Q.68** A regular coiling or zigzagging of polypeptide chains caused by hydrogen bonding between $>\text{N-H}$ and $>\text{C=O}$ group of amino acids near each other in the chain is called
 A) Tertiary structure of protein
 B) Secondary structure of protein
 C) Primary structure of protein
 D) Quaternary structure of Protein
- Q.69** PVC is formed by polymerization of
 A) 1-chloroethene
 B) Propene
 C) Ethane
 D) 1-chloropropane
- Q.70** The catalyst used to obtain good quality polyethene is
 A) Benzol peroxide
 B) Nickel
 C) Trialkyl aluminium + TiCl_4
 D) Plasticizers
- Q.71** Animal fats are located particularly in
 A) Skeleton tissues
 B) Connective tissues
 C) Cardiac tissues
 D) Adipose tissues
- Q.72** Synthetic polymer prepared by using ethylene glycol and terephthalic acid is called
 A) Teflon
 B) Terylene
 C) Nylon
 D) PVC

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SAHIWAL	BUREWALA	MULTAN	D.G KHAN	BAHAWALPUR	R.Y KHAN	

Q.73 The overall result of photochemical smog in afternoon is built up of

- A) Neutralization agent
- B) Reducing agent
- C) Oxidizing agent
- D) Activating agent

Q.74 Acid rain

- A) Retards the growth of trees
- B) Results skin diseases
- C) Effects big marble constructions
- D) All of these

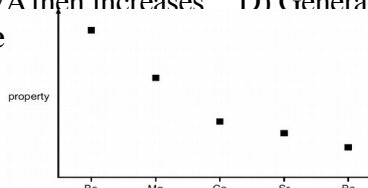
Q.75 The number of elements in first two periods that belong to s-block

- A) 2 elements
- B) 3 elements
- C) 4 elements
- D) 6 elements

Q.76 The trend of melting point across the period from left to right

- A) Increases upto group IVA then decreases
- B) Decreases upto group IVA then increases
- C) Generally increases throughout the period
- D) Generally decreases throughout the period

Q.77 The graph represents the _____ of the Group II elements



What is this property

- A) Solubility of oxides in water
- B) Neutron / proton ratio
- C) Ionization energy
- D) Rate of reaction with water

Q.78 The purest form of silica is

- A) Quartz
- B) Flint
- C) Sand stone
- D) Soluble glass

Q.79 The coordination number and oxidation state of Pt atom in the of complex $[\text{Pt}(\text{EDTA})]^{2-}$ respectively is

- A) 1, -2
- B) 6, +2
- C) 3, +2
- D) 4, +4

Q.80 Which alcohol gives only one possible oxidation product when warmed with dilute acidified potassium dichromate(VI)

- A) Butan-1-ol
- B) 2-methylpropan-1-ol
- C) Butan-2-ol
- D) 2-methylpropan-2-ol

Q.81 Which of the following macronutrient is supplied by air

- A) C
- B) P
- C) H
- D) N

Q.82 Phosphorous nutrient is required to

- A) Stimulate early growth
- B) Increase resistance against disease
- C) Accelerate seed growth
- D) Ensure all these

Q.83 Major source of acid deposition in the atmosphere is

- A) NO
- B) SO₂
- C) NO₂
- D) SO₃

Q.84 The catalyst used in manufacturing of H₂SO₄ by contact process

- A) V₂O₅
- B) Pt
- C) NO
- D) Fe

Q.85 The atomicity of raffinose (a trisaccharide) is

- A) 12
- B) 24
- C) 45
- D) 66

Q.86 What mass of oxygen is consumed by the complete combustion of 21.0 grams of ethylene

- A) 24.1 g
- B) 72.0 g
- C) 60.5 g
- D) 69.0 g

Q.87 Iodine is a type of

- A) Ionic solid
- B) Molecular solid
- C) Covalent solid
- D) Metallic solid

Q.88 Vapor pressure increases as temperature increases, this is because of _____

- A) K.E of molecules increases
- B) Intermolecular forces are weakened
- C) Capability of molecules to leave surface increases
- D) All of above

- Q.89** Which of the following has highest ionization energy value
 A) B
 B) N
 C) O
 D) C
- Q.90** What is not correct for sub shells
 A) They are of different shapes and energies
 B) They are arranged in increasing order of increasing value of (n+l)
 C) They are arranged in decreasing order of energy as we move away from nucleus
 D) They are represented by azimuthal quantum number always
- Q.91** Which one has maximum bond dissociation energy
 A) F₂
 B) Cl₂
 C) Br₂
 D) I₂
- Q.92** A set of orbitals that can undergo most efficient overlapping is
 A) sp² – sp²
 B) sp – sp
 C) sp³ – sp³
 D) p – p
- Q.93** The C - C bond length of the following molecules is in the order
 A) C₂H₆ > C₂H₄ > C₆H₆ > C₂H₂
 B) C₂H₂ < C₂H₄ < C₆H₆ < C₂H₆
 C) C₂H₆ > C₂H₂ > C₆H₆ > C₂H₄
 D) C₂H₄ > C₂H₆ > C₂H₂ > C₆H₆
- Q.94** When one mole of the gaseous atoms are formed from the elements under standard condition, the energy involved is called
 A) Enthalpy of reaction
 B) Enthalpy of formation
 C) Enthalpy of atomization
 D) Enthalpy of neutralization
- Q.95** For the following reaction which statement is correct

$$2\text{NaOH}_{(\text{aq})} + \text{CO}_{2(\text{g})} \longrightarrow \text{Na}_2\text{CO}_{3(\text{aq})} + \text{H}_2\text{O}_{(\text{l})} \quad \Delta H = -89\text{kJ}$$

 A) It is enthalpy of combustion
 B) it is enthalpy of neutralization
 C) it is enthalpy of formation
 D) it is enthalpy of solution
- Q.96** Which of the following pair is expected to show same extent of colligative properties
 A) 0.1 m urea and 0.1 m NaCl
 B) 0.2m urea and 0.2 m MgCl₂
 C) 0.1 m NaCl and 0.1 m Na₂SO₄
 D) 0.1 m Ca(NO₃)₂ and 0.1 m Na₂SO₄
- Q.97** The application of electrolytic cell is/are
 A) Anodizing of Aluminum
 B) Refining of blistered copper
 C) Extraction of sodium metal
 D) All of these
- Q.98** The electrolysis of concentrated brine solution produces all of the following except
 A) Hydrogen
 B) Chlorine
 C) Oxygen
 D) Caustic soda
- Q.99** Which of the following has no units of K_c
 A) $\text{PCl}_5(\text{g}) \rightleftharpoons \text{PCl}_3(\text{g}) + \text{Cl}_2(\text{g})$
 B) $\text{SO}_2(\text{g}) + \frac{1}{2}\text{O}_2(\text{g}) \rightleftharpoons 2\text{SO}_3(\text{g})$
 C) $\text{N}_2(\text{g}) + \text{O}_2(\text{g}) \rightleftharpoons 2\text{NO}(\text{g})$
 D) $\text{N}_2(\text{g}) + 3\text{H}_2(\text{g}) \rightleftharpoons 2\text{NH}_3(\text{g})$
- Q.100** Which of the following statement about K_c is incorrect
 A) K_c value is only changed by the change of temperature
 B) It may or may not has unit
 C) Its value is independent of the initial conc. of reactants
 D) K_c value tells us about rate of reaction
- Q.101** The half-life period for a certain first order reaction is 30 minutes. How long will it take for 1/32 of the reactant to be left behind
 A) 60 minutes
 B) 120 minutes
 C) 90 minutes
 D) 150 minutes
- Q.102** Which of the following statements is not correct
 A) The order of reaction is the sum of the powers of the concentration terms in the rate law representing the reaction
 B) The order of reaction is an experimental quantity
 C) The order of reaction is determined by the stoichiometry of the reaction
 D) The order of reaction may be even zero or fractional

ENGLISH

Directions: Choose the right option to complete the following sentences.

- Q.103** Our reunion was completely _____; who'd have guessed we would have booked the same flight.
 A) illogical B) expected C) fortuitous D) abandoned
- Q.104** Irony can, after a fashion, become a mode of escape: to laugh at the terrors of life is in some sense to _____ them.
 A) overstate B) revitalize C) corroborate D) evade
- Q.105** The plot of this story is so _____ that I can predict the outcome.
 A) intricate B) pivotal C) trite D) fictitious
- Q.106** The authorities have adopted a fee collection formula which is _____, even if it does not outrightly encourage deception.
 A) acquiescent B) skeptical C) applauding D) prejudiced

SPOT THE ERROR

In the first type of sentences, some segments of each sentence are underlined. Your task is to identify that underlined segment of the sentence, which contains the mistake that needs to be corrected.

- Q.107** Police in their investigation used coercive measure to get favourable statement from the accused.
 A) B) C) D)
- Q.108** He proved that if only germs were excluded of wounds, inflammation was averted.
 A) B) C) D)
- Q.109** Pasteur entered in the competition and settled the matter of spontaneous generation once and for all in negative.
 A) B) C) D)
- Q.110** As to the socks, in color and pattern the one was quite different than the other.
 A) B) C) D)
- Q.111** Meats were preserved by salting and drying or to freeze when the weather was cold enough.
 A) B) C) D)
- Q.112** Bess is used to fly after having crossed the continent many times during the past decade.
 A) B) C) D)

Directions:

In each question in the following, four alternative sentences are given. Choose the **CORRECT** one and fill the circle corresponding to that letter in the answer sheet.

- Q.113** A) I remember going to British Museum one day.
 B) I remember to go to British Museum one day.
 C) I remember to go to the British Museum one day.
 D) I remember going to the British Museum one day.
- Q.114** A) If a person believes that wearing some kind of charm will prevent him from having bad luck, he will wear it.
 B) If a person believed that wearing some kind of charm will prevent him from having bad luck, he will wear it.
 C) If a person believes that wearing some kind of a charm will prevent him to have bad luck, he will wear it.
 D) If a person believed that wearing some kind of charm will prevent him from having bad luck, he would wear it.

- Q.115 A) There is always a goodly number of undergraduates whose heads are turned.
 B) There are always goodly number of undergraduates whose head are turned.
 C) There are always goodly number of undergraduate whose heads are turned.
 D) There are always a goodly number of undergraduates whose heads are turned.
- Q.116 A) If he studied more, he would have been able to pass the exam.
 B) If he were studying to a greater degree, he would have been able to pass the exam.
 C) Studying more, he would have been able to pass the exam.
 D) Had he studied more, he would have been able to pass the exam.
- Q.117 A) The players were often punished by the referee’s lack of alertness who penalized all those who were involved in fighting, regardless of who had instigated it.
 B) The referee’s lack of alertness often caused him to penalize all those who were involved in fighting, regardless of who had instigated it.
 C) The players were punished by the lack of alertness of the referee who penalized often all those who were involved in fighting, regardless of who had instigated it.
 D) Lacking alertness, the referee’s choice was to penalize often all those who were involved in fighting, regardless of who had instigated it.
- Q.118 A) It is always to the detriment of their heath.
 B) It is always for the detriment for their heath.
 C) It is always with the detriment on their heath.
 D) It is always at the detriment by their heath.
- Q.119 A) The best places to eat are casual, fun, and you can get a meal for cheap.
 B) The best places to eat are casual, fun, can be temmed with inexpensively.
 C) The best places to eat are casual, funny, and cheapest.
 D) The best places to eat are casual, fun, and inexpensive.
- Q.120 A) They had no post of Court acrobat, and never have had.
 B) They had had no post of Court acrobat, and never had had.
 C) They had no post of Court acrobat and never had had.
 D) They had no post of Court acrobat, and never had.
- Q.121 A) He will has to deal with the problem by showing adroitnness.
 B) He will had to deal with the problem by showing adroitnness.
 C) He will have to deal with the problem by showing adroitnness.
 D) He will having to deal with the problem by showing adroitnness.
- Q.122 A) He was drenched with the hotness of his fear.
 B) He was drenched in the hotness of his fear.
 C) He was drenched by the hotness of his fear.
 D) He was drenched off the hotness of his fear.

Directions:
 In each of the following question, four alternative meanings of a word are given. You have to select the nearest correct meaning of the given word and fill the appropriate Bubble / Circle on the MCQ Response Form.

- Q.123 **FACILE**
 A) Superficial B) Whimsical C) Superb D) Beautiful
- Q.124 **FROWSY**
 A) Disheveled B) Arranged C) Drowsy D) Bluish
- Q.125 **FAWNING**
 A) Toadying B) Yawning C) Assertive D) Obedient
- Q.126 **GAUDY**
 A) Bawdy B) Haughty C) Sober D) Garish

- Q.146 Which of the following is not a part of phosphatidic acid:**
 A) Glycerol
 B) Phosphoric acid
 C) Fatty acid
 D) Serine
- Q.147 Secondary structure of DNA is maintained by:**
 A) Covalent bond
 B) Phosphodiester bond
 C) Hydrogen bond
 D) Coordinate covalent bond
- Q.148 How many RNA strands are present in mature HIV?**
 A) 1
 B) 2
 C) 3
 D) 4
- Q.149 The structure which contains the respiratory enzymes in bacteria are:**
 A) Nucleoid
 B) Mesosomes
 C) Flagella
 D) Plasmid
- Q.150 It is a drug that is used against bacterial infection:**
 A) Lovastatin
 B) Streptomycin
 C) Griseofulvin
 D) Cyclosporin
- Q.151 It is commonly called as pink bread mold:**
 A) Rhodotorula
 B) Neurospora
 C) Fusarium
 D) Penicillium
- Q.152 An enzyme and substrate react through a specific feature or site present in enzyme known as:**
 A) Building site
 B) Active site
 C) Catalyst site
 D) Inhibition site
- Q.153 The abundance of amino acids make _____ of enzyme:**
 A) Binding site
 B) Active site
 C) Catalytic site
 D) Globular shape
- Q.154 Which pyrimidine is commonly present in both DNA and RNA?**
 A) Adenine
 B) Guanine
 C) Cytosine
 D) All A, B, C
- Q.155 Activation energy of reactants can be decreased by:**
 A) Substrate
 B) Enzyme
 C) Co-enzyme
 D) Inhibitor
- Q.156 Body cavity of round worms is called:**
 A) Pseudocoelom
 B) Coelom
 C) Acoelom
 D) Enteron
- Q.157 *Ancylostoma duodenale* is the parasite of human:**
 A) Colon
 B) Liver
 C) Small intestine
 D) Bile duct
- Q.158 Malaria is transmitted in human beings by:**
 A) Plasmodium
 B) Anopheles
 C) House fly
 D) Tse-tse fly
- Q.159 Male part of flower is known as:**
 A) Androecium
 B) Gynoecium
 C) Sepals
 D) Petals
- Q.160 Endosperm is formed as a result of:**
 A) Pollination
 B) Self pollination
 C) Double fertilization
 D) Cross pollination
- Q.161 Which one of the following cause thinning of ozone?**
 A) CO₂
 B) Bromine
 C) CFCs
 D) Carbon
- Q.162 Role of species that it plays in a community including behavior and influence is called:**
 A) Niche
 B) Ecosystem
 C) Habitat
 D) Biosphere
- Q.163 These are bloom forming prokaryotes in fresh water during eutrophication:**
 A) Aerobic bacteria
 B) Anaerobic bacteria
 C) Cyanobacteria
 D) Diatoms
- Q.164 In an ecosystem, the relationship between pollinating insects and flowering plant is example of:**
 A) Mutualism
 B) Predation
 C) Commensalism
 D) Parasitism

- Q.165** Successive stages of eating and being eaten by which recycling of materials and flow of energy takes place is called:
- A) Food chain
B) Food web
C) Trophic level
D) Food link
- Q.166** It acts as connecting link between reptiles and birds:
- A) Dipnoi
B) Newts
C) Archaeopteryx
D) Archaeobacteria
- Q.167** The gene with multiple alleles is called:
- A) Polygenic gene
B) Epistatic gene
C) Pleiotropic gene
D) Polymorphic gene
- Q.168** Phenylketonuria is an example of:
- A) Transformation
B) Aberration
C) Translocation
D) Point mutation
- Q.169** A situation in which one gene affects two or more characteristics is called:
- A) Epistasis
B) Dominance
C) Pleiotropy
D) Polygenes
- Q.170** The mutation which causes change in sequence of DNA is called:
- A) Point mutation
B) Excision error
C) Chromosomal mutation
D) Chromosomal aberration
- Q.171** In recombinant DNA technology _____ are tools for manipulating DNA:
- A) Viruses
B) Chromosomes
C) Enzymes
D) Genes
- Q.172** In DNA finger printing process, the use of _____ produces distinctive pattern on autoradiograph or X-ray film?
- A) Restriction enzymes
B) Microsatellites
C) Macrosatellites
D) Probes for genetic markers
- Q.173** In the recombinant DNA technology plasmids are used as:
- A) Genetic material
B) Enzymes
C) Vectors
D) Probes
- Q.174** In which process multiple copies of the desired genes are produced?
- A) Polymerase chain reaction
B) Gene sequencing
C) Analyzing DNA
D) DNA finger printing
- Q.175** The enzyme adenosine deaminase is missing in persons suffering from:
- A) Cystic fibrosis
B) Hypercholesterolemia
C) SCID
D) Parkinson's disease
- Q.176** It is an enzyme that can be found in oral cavity:
- A) Amylase
B) Lipase
C) Trypsin
D) mucus
- Q.177** Protein digestion is completed in:
- A) Stomach
B) Duodenum
C) Ileum
D) Caecum
- Q.178** Enterokinase works in:
- A) Acidic medium on pepsinogen
B) Alkaline medium on pepsinogen
C) Acidic medium on trypsinogen
D) Alkaline medium on trypsinogen
- Q.179** Chemical digestion of fats occurs in:
- A) Buccal cavity
B) Stomach
C) Small intestine
D) Large intestine
- Q.180** Smallest white blood cells are:
- A) Neutrophils
B) Eosinophil
C) lymphocytes
D) monocytes
- Q.181** Antigen antibody reaction occurs in:
- A) Cell mediated response
B) Humoral response
C) Antigenic response
D) Immune response
- Q.182** Dissociation of Hb increases with the increase in:
- A) pH
B) oxygen
C) bicarbonates
D) protons

- Q.183 Air sacs do not contain:**
A) Bronchioles
B) Bronchi
C) Alveolar ducts
D) Alveolar sacs
- Q.184 Uptake of sodium ions from nephrons occurs under the influence of:**
A) Thyroid
B) Pancreas
C) Adrenal cortex
D) Adrenal medulla
- Q.185 It is not a function of kidney:**
A) Excretion
B) Osmoregulation
C) Formation of urine
D) Formation of urea
- Q.186 Dialyzing membrane in dialyzer is made permeable to all except:**
A) Water
B) Urea
C) Uric acid
D) RBCs
- Q.187 Which of the following is in equal amount in afferent and efferent arteriole of nephron:**
A) Urea
B) Water
C) Amino Acids
D) RBCs
- Q.188 It is a complication associated with renal stones:**
A) Failure of filtration
B) Failure of urea formation
C) Urinary retention
D) Blockage of bile duct
- Q.189 It is an example of spinal nerve:**
A) Optic nerve
B) Auditory nerve
C) Vagus nerve
D) Sciatic nerve
- Q.190 Biological clock for various diurnal rhythms of our body is:**
A) Thalamus
B) Hypothalamus
C) Pituitary gland
D) Pineal gland
- Q.191 A neurotransmitter that is deficient in patients with Parkinson's disease:**
A) Acetylcholine
B) Dopamine
C) Epinephrine
D) Serotonin
- Q.192 It is not a character of myelinated neurons:**
A) Saltatory impulse
B) Nodes of Ranvier
C) Low speed
D) Neuroglia
- Q.193 Part of forebrain that is involved in speech:**
A) Cerebrum
B) Cerebellum
C) Hypothalamus
D) amygdala
- Q.194 It is a hormone which stimulated birth after its release from pituitary:**
A) Progesterone
B) FSH
C) LH
D) Oxytocin
- Q.195 LTH is old name used for:**
A) FSH
B) LH
C) Prolactin
D) Oxytocin
- Q.196 Pregnancy is maintained by:**
A) Progesterone
B) Oestrogen
C) Oxytocin
D) LH
- Q.197 All of the following are paired organs in humans except:**
A) Testes
B) Ovary
C) Kidney
D) Heart
- Q.198 Last phase of menstrual cycle is:**
A) Luteal phase
B) Menstrual phase
C) Follicular phase
D) Ovulation phase
- Q.199 The total lumbosacral vertebrae are:**
A) 10
B) 9
C) 14
D) 5
- Q.200 It can provide protection to genital organs:**
A) Vertebral Column
B) Palatine
C) Cranium
D) Pelvis
- Q.201 Total number of bones in axial skeleton of adult human is:**
A) 22
B) 80
C) 126
D) 206

- Q.202** If infection is untreated the system progresses to spasm of larynx, respiratory paralysis and ultimately death. It is about:
 A) Tetanus
 B) Tetany
 C) Cramp
 D) Muscle Fatigue
- Q.203** The skeletal muscles are attached with bones through:
 A) Tendons
 B) Sarcolemma
 C) Myofibrils
 D) Ligaments
- Q.204** Oxytocin:
 A) Stimulates milk production
 B) Inhibits milk production
 C) Stimulates milk ejection
 D) Inhibits milk ejection
- Q.205** It increases permeability of tubule cells for water:
 A) Insulin
 B) Glucagon
 C) ADH
 D) LTH
- Q.206** Estrogens are secreted from:
 A) Ripening follicles
 B) Primary follicle
 C) placenta
 D) pituitary
- Q.207** Alpha cells of pancreas produces:
 A) STH
 B) Thyroxin
 C) Insulin
 D) Glucagon
- Q.208** Which of the following acts on thyroid gland?
 A) TRF
 B) TSH
 C) Thyroxin
 D) Thyronin
- Q.209** These are the main cells of immune system that are attacked by HIV:
 A) Helper T cells
 B) Suppressor T Cells
 C) B lymphocytes
 D) Plasma cells
- Q.210** Antibody is specific due to its:
 A) Constant Region
 B) Variable region
 C) Heavy chain
 D) Light chain
- Q.211** Which of the followings is involve in phagocytosis?
 A) T-Helper Cells
 B) T-Cytotoxic Cell
 C) B Cells
 D) Monocyte
- Q.212** It can stimulate production of antibodies:
 A) Antigen
 B) Vaccine
 C) Toxin
 D) All A,B,C
- Q.213** After snakebite, antibodies are injected in body. This is called:
 A) Passive immunity
 B) Active immunity
 C) Natural passive immunity
 D) Natural active immunity
- Q.214** By complete breakdown of glucose how many NADH are produced during Krebs cycles:
 A) 6
 B) 10
 C) 8
 D) 2
- Q.215** It is the acceptor of acetyl CoA in Krebs cycle:
 A) RuBP
 B) Rubisco
 C) Oxaloacetate
 D) Citrate
- Q.216** Which of the following captures light energy?
 A) Chloroplast
 B) Plastids
 C) Mitochondria
 D) Stroma
- Q.217** Chloroplast encloses a dense fluid filled region called:
 A) Matrix
 B) Granum
 C) Cytoplasm
 D) Stroma
- Q.218** The most important and most abundant chlorophyll is:
 A) Chlorophyll A
 B) Chlorophyll B
 C) Chlorophyll C
 D) Chlorophyll D
- Q.219** PCR takes its name from:
 A) Enzyme
 B) Scientist
 C) Primer
 D) Heat
- Q.220** These are the vectors used in biotechnology:
 A) Plasmids
 B) EcoRI
 C) Mosquito
 D) Plasmodium